

**Remarks**

Applicants respectfully request reconsideration of the present application in view of the above amendments and following remarks. No claims have been amended, added or cancelled. Therefore, claims 11-29 remain pending in the present application.

Claims 11-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Publication No. 2003/0235723 to Simpkins et al. ("the Simpkins reference") in view of U.S. Patent No. 6,626,650 to Kenchington et al. ("the Kenchington reference"). Applicants respectfully traverse this rejection.

Independent claim 11 is directed to a fuel cell assembly including at least one fuel cell stack and a supporting structure surrounding the fuel cell stack. A gas spring is disposed within the assembly between the stack and the supporting structure. The spring includes a first membrane, a second membrane, and means for sealing edges of the first and second membranes to define a closed chamber therebetween for capture of gas. The fuel cell assembly also includes first valve means for admitting gas to the chamber, and second valve means for exhausting gas from said chamber.

In rejecting claim 11, the Examiner stated that the Simpkins reference teaches all of the limitations in claim 11 except the first and second valve means. *See Office Action dated February 9, 2006* ("Office Action"), pgs. 2-3. In order to teach the first and second valve means, the Examiner combined the Kenchington reference with the Simpkins reference. *See id.* at pg. 3.

In order to establish a prima facie case of obviousness, the Examiner is required to provide a reason why one of ordinary skill in the art would have been motivated to modify the prior art to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). There must be actual evidence showing a suggestion or motivation to modify the teachings of that reference. See *In re Kotzab*, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). The showing must be clear and particular. See *In re Dembiczak*, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999); see also *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968) (stating that a rejection based upon 35 U.S.C. § 103(a) must rest on a factual basis).

Applicants submit that the Examiner has failed to provide any specific facts to demonstrate that one skilled in the art would have been motivated to combine the teachings of the Kenchington reference with the Simpkins reference. First, one of valves (16) pointed out by the Examiner is described as being used in conjunction with an internal combustion engine (10), and the other valve (116) is described as being used in conjunction with a compressor (100). See *Kenchington*, Col. 8, lines 1-4; Col. 13, lines 6-14. The engine (10) and the compressor (100) are shown as separate embodiments in the Kenchington reference, and there has been nothing presented to suggest that the two valves (16, 116) are used in a single assembly, such as a fuel cell assembly provided in claim 11.

Second, there has been insufficient evidence presented to teach or suggest that one of ordinary skill in the art would have been motivated to use the two valves (16, 116) in the Kenchington reference in a fuel cell assembly, let alone a gas spring

disposed within a fuel cell assembly. In order to establish the motivation to use the valves (16, 116) in a fuel cell assembly, the Examiner pointed to a portion of the Kenchington reference that states that the cyclically operated fluid displacement machine "would fill the gap between current technology and fuel cell technology . . . ." *Kenchington*, Col. 6, lines 4-5. From this statement, it appears that the cyclically operated fluid displacement machine disclosed in the Kenchington reference would be used in lieu of fuel cells and not used in conjunction with a fuel cell system. See *Kenchington*, Col. 6, lines 4-9 (citing the complexity and costs of fuel cell systems). As such, the Kenchington reference actually teaches away from applying the technology disclosed therein with fuel cells. See *In re Rudko*, Civ. App. No. 98-1505 (Fed. Cir. May 14, 1999) (unpublished) (stating that an invention is not obvious where one prior art reference teaches away from the combination with a second prior art reference).

The Examiner also pointed out that the Kenchington reference refers to the use of a gas spring between a housing and a reciprocating member to bias the reciprocating member to move in one direction. See *Kenchington*, Col. 2, lines 62-67; Col. 3, lines 1-9. The mere fact that the Kenchington reference mentions the use of a gas spring does not provide the necessary motivation to use the two valves (16, 116) disclosed in the Kenchington reference in a fuel cell assembly as recited in claim 11, especially given that the Kenchington reference teaches away from such a combination. There has been no specific evidence presented to show that the gas spring mentioned the Kenchington reference is used in conjunction with a fuel cell assembly. The only similarity between the Simpkins reference and the Kenchington

reference is that they both relate to power generation systems, which is insufficient to suggest the motivation to combine the two references. See *Interactive Techs. Inc. v. Pittway Corp.*, Civ. App. No. 98-1464 (Fed. Cir. June 1, 1999) (unpublished), *cert denied*, 528 U.S. 1046 (1999).

For at least the reasons set forth above, Applicants submit that a *prima facie* case of obviousness based on the combination of the Simpkins reference and the Kenchington reference has not been established. Applicants request that the rejection of claim 11 be withdrawn. As claims 12 and 14-20 depend either directly or indirectly from claim 11, Applicants request that the rejection of claims 12 and 14-20 be withdrawn for at least the same reasons that was set forth with respect to claim 11.

Independent claim 13 is directed to a fuel cell assembly comprising at least one fuel cell stack and a supporting structure surrounding the fuel cell stack. Gas spring means is disposed within the assembly between the stack and the supporting structure. The gas spring means defines a closed chamber and includes an inlet valve for admitting gas into the chamber and an outlet valve for exhausting gas from the chamber.

For at least the same reasons set forth with respect to claim 11, Applicants submit that there is no motivation to combine the teachings of the Kenchington reference with the fuel cell stack disclosed in the Simpkins reference. As such, Applicants request that the rejection of claim 13 be withdrawn.

Independent claim 21 is directed to a fuel cell assembly including at least one fuel cell stack and a supporting structure surrounding the fuel cell stack. A gas

spring is disposed within the assembly between the stack and the supporting structure. The spring includes a membrane defining a gas chamber. A first valve is positioned in the membrane for admitting gas to the chamber, and a second valve is positioned in the membrane for exhausting gas from the chamber. Claims 22-29 depend either directly or indirectly from claim 21 and further define the invention set forth in claim 21.

For at least the same reasons set forth with respect to claim 11, Applicants submit that there is no motivation to combine the teachings of the Kenchington reference with the fuel cell stack disclosed in the Simpkins reference. Thus, Applicants request that the rejection of claims 21-29 be withdrawn.

### **Conclusion**

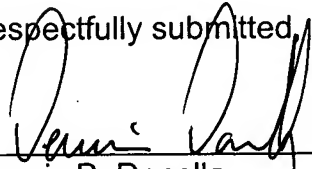
In light of the foregoing, Applicants submit that claims 11-29 are in condition for allowance and such allowance is respectfully requested. Should the Examiner feel that any unresolved issues remain in this case, the undersigned may be contacted at the telephone number listed below to arrange for an issue resolving conference.

Applicants do not believe that any fee is due at this time. However, the Commissioner is hereby authorized to charge any fee that may have been

overlooked to Deposit Account No. 10-0223.

Respectfully submitted,

Dated: 5/9/06

  
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